

## NextPM Lite Datasheet

NEXT GENERATION PARTICULATE MATTER OEM SENSOR  
PM 10, PM 2.5, PM 1



### Advantages

TERA Sensor's accuracy

Durability

The Smallest

Designed for **indoor air quality monitoring and home equipment**, NextPM Lite provides real-time measurements of PM1, PM2.5 and PM10 in  $\mu\text{g}/\text{m}^3$  and  $\text{pcs}/\text{L}$ .

NextPM Lite is **one of the smallest** sensors on the market with the most advanced performance.

## Technical specifications

| Designation                                         | Values                                                                                                                                      | Units                                                                                       |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>GENERAL</b>                                      |                                                                                                                                             |                                                                                             |
| Technology                                          | Optical                                                                                                                                     | -                                                                                           |
| Targeted pollutants                                 | Particulate Matter                                                                                                                          | -                                                                                           |
| Outputs                                             | PM1<br>PM2.5<br>PM10<br><br>Channel 1 : >0.3 µm<br>Channel 2 : >0.5 µm<br>Channel 3 : >1.0 µm<br>Channel 4 : >2.5 µm<br>Channel 5 : >5.0 µm | <i>µg/m<sup>3</sup> &amp; number of particles / L</i><br><br><i>number of particles / L</i> |
| Airflow                                             | 1                                                                                                                                           | L/mn                                                                                        |
| Size (l * w * h)                                    | Annex 1                                                                                                                                     | mm                                                                                          |
| Lifetime (MTTF) <sup>1</sup>                        | > 20 000                                                                                                                                    | hours                                                                                       |
| <b>PERFORMANCE</b>                                  |                                                                                                                                             |                                                                                             |
| Particle Size detection range                       | 0.3 - 10                                                                                                                                    | µm diameter                                                                                 |
| Detection efficiency with 0.3 µm diameter particles | > 50                                                                                                                                        | %                                                                                           |
| Concentration detection range / PM10 - PM2,5 - PM1  | 0 - 1000                                                                                                                                    | µg/m <sup>3</sup><br>(Arizona dust A1 equivalent)                                           |
| Detection Limit                                     | < 1                                                                                                                                         | µg/m <sup>3</sup><br>(Arizona dust A1 equivalent)                                           |
| Linearity error                                     | < 5                                                                                                                                         | %                                                                                           |
| Repeatability error <sup>2</sup>                    | < 3                                                                                                                                         | %                                                                                           |
| Refresh rate                                        | 1/10                                                                                                                                        | sec.                                                                                        |
| Warm-up time                                        | 10                                                                                                                                          | sec.                                                                                        |
| Temperature influence                               | < 0.01                                                                                                                                      | µg/ m <sup>3</sup> /°C                                                                      |
| <b>ELECTRIC SPECIFICATIONS</b>                      |                                                                                                                                             |                                                                                             |
| Power supply                                        | 5                                                                                                                                           | VDC                                                                                         |
| Power consumption in operation                      | < 80                                                                                                                                        | mA                                                                                          |
| Power consumption in Sleep Mode                     | < 5                                                                                                                                         | mA                                                                                          |

| Designation           | Values                                                                                      | Units |
|-----------------------|---------------------------------------------------------------------------------------------|-------|
| COMMUNICATION         |                                                                                             |       |
| UART, Modbus or I2C   | Download NextPM Lite User Guide for more informations                                       |       |
| OTHER                 |                                                                                             |       |
| Operating conditions  | 0 to +50                                                                                    | °C    |
|                       | 0 - 70 uncondensed                                                                          | %     |
|                       | 500 to 1500                                                                                 | hPa   |
| Storage conditions    | -20 to +60                                                                                  | °C    |
|                       | 0 - 95 uncondensed                                                                          | %     |
|                       | 500 to 1500                                                                                 | hPa   |
| Certifications        | CE                                                                                          |       |
|                       | REACH                                                                                       |       |
|                       | RoHS compliant                                                                              |       |
| Dimensions and weight | L 34.3 mm x W 32.4 mm x H 18.9 mm   > 25 g<br>L 1.34 in / W 1.26 in / H 0.71 in   > 0.88 Oz |       |

<sup>1</sup> Lifespan can vary depending on the operating conditions

<sup>2</sup> Calculated with the fifteen minutes moving average output

## Mechanical specifications

